

Application No. 09/560294

Docket No.: Nielsen 3 (013217.0127C1US)

Amendment dated 19 October 2005

Reply to Notice Of Non-Compliant Amendment Mailed 10/12/2005

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A system for load balancing, ~~based on class of service~~, for wireless communication networks having a plurality of cells, each cell adapted to serve a plurality of mobile subscriber stations, comprising:

~~means, responsive to receipt of a service request from a mobile subscriber station, for establishing a communication connection for said requesting mobile subscriber station via at least one of said plurality of cells;~~

~~means for determining when assignment of [[a]] said mobile subscriber station to a cell results in a first criteria predetermined threshold being exceeded, comprising:~~

~~means for measuring a traffic load in said cell,~~

~~means for comparing said measured traffic load to a predetermined traffic load threshold;~~

~~means, responsive to said means for determining predetermined threshold being exceeded, for identifying at least one of a plurality of mobile subscriber stations served by said cell for reassignment to another cell, based upon the class of service of said plurality of mobile subscriber stations;~~

Claim 2 (Canceled)

3. (Currently amended) The system for load balancing of claim 1 wherein said means for identifying comprises:

~~means for determining a class of service for said plurality of mobile subscriber stations served by said cell;~~

~~means for selecting at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell; and~~

~~means for identifying another cell capable of serving said selected at least one mobile subscriber station.~~

4. (Original) The system for load balancing of claim 3 wherein said means for selecting comprises:

~~means for arbitrating among ones of at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell, using additional~~

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criteria selected from call management factors, such as: duration of call connection, location of mobile subscriber within the cell, proximity to an adjacent cell, signal strength in adjacent cells, and the like.

5. (Original) The system for load balancing of claim 3 wherein said means for identifying further comprises:

means for effecting a handoff of a communication connection that serves said selected at least one mobile subscriber station from said cell to said another cell.

6. (Currently amended) The system for load balancing of claim ~~[[4]]~~ 5 wherein said means for identifying further comprises:

means, responsive to said means for effecting, for reviewing the secondary criteria to determine whether additional handoffs of mobile subscriber stations to other cell sites is advisable.

7. (Currently amended) A method of load balancing, ~~based on class of service~~, for wireless communication networks having a plurality of cells, each cell adapted to serve a plurality of mobile subscriber stations, comprising the steps of:

establishing, in response to receipt of a service request from a mobile subscriber station, a communication connection for said requesting mobile subscriber station via at least one of said plurality of cells;

determining when assignment of ~~[[a]]~~ said mobile subscriber station to a cell results in a first criteria predetermined threshold being exceeded, comprising:

measuring a traffic load in said cell;

comparing said measured traffic load to a predetermined traffic load threshold;

identifying, in response to said step of determining predetermined threshold being exceeded, at least one of a plurality of mobile subscriber stations served by said cell for reassignment to another cell, ~~based upon the class of service of said plurality of mobile subscriber stations.~~

Claim 8 (Canceled)

9. (Currently amended) The method of load balancing of claim 7 wherein said step of identifying comprises:

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determining a class of service for said plurality of mobile subscriber stations served by said cell;

selecting at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell; and

identifying another cell capable of serving said selected at least one mobile subscriber station.

10. (Original) The method of load balancing of claim 9 wherein said step of selecting comprises:

arbitrating among ones of at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell, using additional criteria selected from call management factors, such as: duration of call connection, location of mobile subscriber within the cell, proximity to an adjacent cell, signal strength in adjacent cells, and the like.

11. (Original) The method of load balancing of claim 9 wherein said step of identifying further comprises:

effecting a handoff of a communication connection that serves said selected at least one mobile subscriber station from said cell to said another cell.

12. (Currently amended) The method of load balancing of claim [[10]] 11 wherein said step of identifying further comprises:

reviewing, in response to said step of effecting, the secondary criteria to determine whether additional handoffs of mobile subscriber stations to other cell sites is advisable.

13. (Currently amended) A system for load balancing, ~~based on class of service~~, for wireless communication networks having a plurality of cells, each cell adapted to serve a plurality of mobile subscriber stations, comprising:

service request processing means, responsive to receipt of a service request from a mobile subscriber station, for establishing a communication connection for said requesting mobile subscriber station via at least one of said plurality of cells;

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traffic load determining means for determining when assignment of ~~[[a]]~~ said mobile subscriber station to a cell results in a ~~[first criteria predetermined threshold]~~ being exceeded, comprising:

traffic load measurement means for measuring a traffic load in said cell,

traffic threshold means for comparing said measured traffic load to a predetermined

traffic load threshold;

subscriber class of service identification means, responsive to said ~~traffic load determining means predetermined threshold being exceeded~~, for identifying at least one of a plurality of mobile subscriber stations served by said cell for reassignment to another cell, ~~based upon the class of service of said plurality of mobile subscriber stations.~~

Claim 14 (Canceled)

15. (Currently amended) The system for load balancing of claim 13 wherein said subscriber class of service identification means comprises:

class of service means for determining a class of service for said plurality of mobile subscriber stations served by said cell;

mobile subscriber station selection means for selecting at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell; and

candidate cell means for identifying another cell capable of serving said selected at least one mobile subscriber station.

16. (Original) The system for load balancing of claim 15 wherein said mobile subscriber station selection means comprises:

additional criteria determining means for arbitrating among ones of at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell, using additional criteria selected from call management factors, such as: duration of call connection, location of mobile subscriber within the cell, proximity to an adjacent cell, signal strength in adjacent cells, and the like.

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17. (Original) The system for load balancing of claim 15 wherein said subscriber class of service identification means further comprises:

handoff activation means for effecting a handoff of a communication connection that serves said selected at least one mobile subscriber station from said cell to said another cell.

18. (Currently amended) The system for load balancing of claim ~~[[4]]~~ 17 wherein said subscriber class of service identification means further comprises:

threshold review means, responsive to said handoff activation means, for reviewing the secondary criteria to determine whether additional handoffs of mobile subscriber stations to other cell sites is advisable.

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